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Hsieh et al.

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**(54) METHODS AND APPARATUS FOR
SCOUT-BASED CARDIAC CALCIFICATION
SCORING**

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(51) **Int. Cl.⁷** **G01N 23/00**

(52) **U.S. Cl.** **378/8; 378/95**

(58) **Field of Search** 378/8, 95

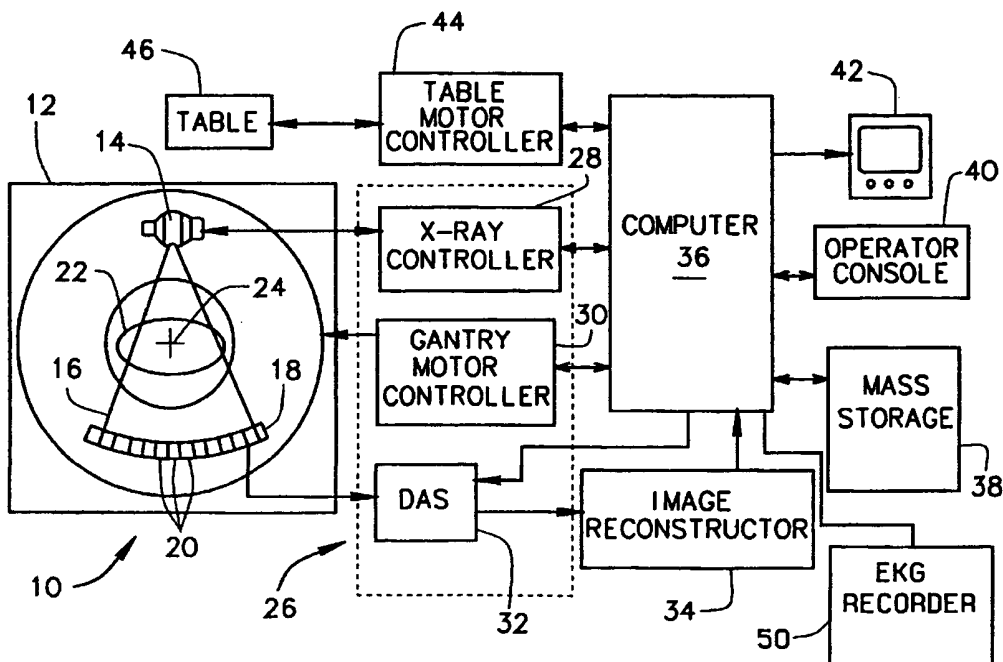
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(57) **ABSTRACT**

In one aspect, the present invention is a method for producing CT images of a patient's heart suitable for calcification scoring, in which the heart has a cardiac cycle. The method includes steps of acquiring data representative of a first scout-scanned CT image of physical locations of the patient's body including at least a portion of the patient's heart at phases $\phi_1(L)$ of the cardiac cycle, acquiring data representative of a second scout-scanned CT image of the physical locations of the patient's body including at least a portion of the patient's heart at phases $\phi_2(L)$ of the cardiac cycle different from $\phi_1(L)$ at physical positions L of interest, and determining a difference image from the acquired data representative of the first scout-scanned CT image and the acquired data representative of the second scout-scanned CT image data. It is not necessary that $\phi_1(L)$ and $\phi_2(L)$ be constant as a function of position L .

21 Claims, 5 Drawing Sheets



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